

AMENDMENT TO THE CLAIMS:

The following claim set replaces all prior versions, and listings, of claims in the application:

1.-18. (canceled)

19. (new) Filtering medium based on activated carbon comprising three superposed layers which include top and bottom outer layers and an inner layer between said outer layers, wherein

the inner layer consists of 80 to 90% by dry weight of activated carbon, the balance to 100% consisting of organic and/or inorganic chemical fibres; and wherein

the bottom layer comprising from 45 to 100% by dry weight of organic chemical fibres having OH functional groups and optionally inorganic fibres, the possible balance to 100% consisting of activated carbon and/or of a material having a density below 0.9, wherein all or some of the OH functional groups have reacted with a grafting reagent Rx, where R is a suitable hydrophobic group in order to be able to be in the liquid state at a temperature of at least 200°C at atmospheric pressure and in order to be able to react on the OH functional groups at least under certain reaction conditions, while producing covalent grafting of hydrophobic groups R onto the OH functional groups with formation of a volatile compound HX under the reaction conditions, and wherein

the top layer comprises from 5 to 25% by dry weight of activated carbon, the balance to 100% consisting of organic and/or inorganic chemical fibres.

20. (new) Filtering medium according to claim 19, wherein RX is a saturated or unsaturated fatty acid halide comprising at least 16 carbon atoms.

21. (new) Filtering medium according to claim 20, wherein RX is behenic acid.

22. (new) Filtering medium according to claim 19, wherein the bottom layer contains at least 30% by weight of organic fibres having OH functional groups.
23. (new) Filtering medium according to claim 19, wherein the activated carbon present in the top layer and optionally in the bottom layer is in the form of fibres.
24. (new) Filtering medium according to claim 19, wherein the activated carbon in the top layer and optionally in the bottom layer is in the form of fibres for adsorbing CH₄ and H₂S, wherein the activated carbon fibres exhibit the following characteristics:
 - a yarn count of filaments of 1 to 1.5 dtex,
 - a specific surface area of 1400 m²/mg, and
 - microporosity in an amount of 95%.
25. (new) Filtering medium according to claim 19, wherein the top layer includes a coating layer comprised of a photocatalytic agent.
26. (new) Filtering medium according to claim 25, wherein the coating layer is a mixture comprising between 10 and 70 parts of an aqueous colloidal dispersion of silicon dioxide (SiO₂) particles, and the balance to 100 parts consisting of TiO₂ anatase.
27. (new) Filtering medium according to claim 26, wherein the mixture comprises 50 parts of the aqueous colloidal dispersion of silicon dioxide (SiO₂).
28. (new) Filtering medium according to claim 26, wherein the SiO₂ particles are present in an amount from 1 to 50% by weight of the colloidal aqueous dispersion and have a diameter of between 10 and 40 nm.
29. (new) Filtering medium according to claim 26, wherein the coating layer comprises between 5 and 40 g/m² of the photocatalytic agent.

30. (new) Filtering medium according to claim 26, wherein the coating layer comprises 20 g/m² of the photocatalytic agent.
31. (new) Filtering medium based on activated carbon which comprises three superposed layers including first and second outer layers and an inner layer between the outer layers, wherein the inner layer consists of 80 to 95% by dry weight of activated carbon, the balance to 100% consisting of organic and/or inorganic chemical fibres, and wherein the first outer layer comprises from 45 to 95% by dry weight of an organic and/or inorganic chemical, the balance to 100% consisting of activated carbon and/or of a material having a density of less than 0.9, and wherein the second outer layer comprises from 5 to 25% by dry weight of activated carbon, the balance to 100% consisting of organic and/or inorganic chemical fibres, and wherein the inner layer has a weight of between 40 and 200 g/m², and the outer layers have a weight between 10 and 100 g/m².
32. (new) A floating support which comprises the filtering medium of claim 19 or 31.
33. (new) Filtering medium as in claim 19 or 31, which further comprises epichlorohydrin resin.